

IN THE CLAIMS:

1. - 11. (canceled)

12. (currently amended) An apparatus for forming an
~~producing~~ optical aperture ~~according to claim 2; further~~
~~comprising a work having the~~ in an object having a tip with a
pointed end and a plurality of stoppers disposed adjacent the
tip, the apparatus comprising; a pressing body for pressing
the pointed end of the tip and at least a part of each of the
stoppers of the object to form an optical aperture at the
pointed end of the tip; a loader for applying a loading force
on the pressing body to press the pointed end of the tip and
the part of each of the stoppers; a for aperture; a magnifying
glass for measuring a curvature amount of the object; and a
~~work's curve; a~~ load controller for controlling a direction of
the loading force applied by the loader on the pressing body
in accordance with the curvature of the object measured by the
magnifying glass so that the direction of the applied loading
force is generally to make the direction being perpendicular
to the pointed end of the tip.

13. - 29. (canceled)

30. (new) In combination: an object having a tip
with a pointed end and a plurality of stoppers disposed
adjacent the tip; a pressing body for pressing the pointed end
of the tip and at least a part of each of the stoppers of the

object to form an optical aperture at the pointed end of the tip; a loader for applying a loading force on the pressing body to press the pointed end of the tip and the part of each of the stoppers; and a load controller for controlling the loading force applied by the loader on the pressing body.

31. (new) An apparatus according to claim 30; wherein the load controller comprises a rotational gear connected to the loader for undergoing rotation to drive the loader into pressure contact with the loader to apply a loading force to the pressing body.

32. (new) An apparatus according to claim 31; wherein the load controller further comprises a motor for rotationally driving the rotational gear; and further comprising control means for controlling a rotational speed of the motor to control a magnitude of the loading force applied by the loader to the pressing body.

33. (new) An apparatus according to claim 31; wherein the loader has a tip portion for contacting a load target point of the pressing body.

34. (new) An apparatus according to claim 33; wherein the tip portion of the loader is generally spherical-shaped.

35. (new) An apparatus according to claim 30; wherein the loader comprises a biasing member having a tip; and wherein the load controller comprises a rotational gear for undergoing rotation to bias the biasing member to bring the tip of the biasing member into pressure contact with the pressing body to apply the loading force to a load target point of the pressing body.

36. (new) An apparatus according to claim 35; wherein the load controller has a motor for rotationally driving the rotational gear; and further comprising control means for controlling a rotational speed of the motor to control a magnitude of the loading force applied by the tip of the biasing member to the load target point of the pressing body.

37. (new) An apparatus according to claim 35; wherein the tip of the biasing member is generally spherical-shaped.

38. (new) An apparatus according to claim 30; wherein the loader comprises a magnetized core having a tip; and wherein the load controller comprises a coil wound around the magnetized core for receiving an electric current to move the magnetized core to bring the tip thereof into pressure contact with the pressing body to apply the loading force to a load target point of the pressing body.

39. (new) An apparatus according to claim 38; wherein the tip of the magnetized core is generally spherical-shaped.

40. (new) An apparatus according to claim 38; further comprising control means for controlling the amount and duration time of the electric current received by the coil to control a magnitude of the loading force applied by the tip of the magnetized core to the load target point of the pressing body.

41. (new) An apparatus according to claim 30; further comprising an opaque film disposed on the tip and the stoppers so that the pressing body presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.

42. (new) In combination: an object having a tip with a pointed end and a plurality of stoppers disposed adjacent the tip; a pressing body for applying a loading force to press the pointed end of the tip and at least a part of each of the stoppers of the object to form an optical aperture at the pointed end of the tip; and a load controller for controlling the loading force applied by the pressing body.

43. (new) An apparatus according to claim 42; wherein the pressing body has a groove; and wherein the load controller comprises a rotational cam having a gear portion for engaging the groove of the pressing body so that during rotation of the rotational cam, the gear portion engages the groove of the pressing body and displaces the pressing body against the force of gravity until the gear portion is disengaged from the groove when the rotational cam reaches a preselected rotational angle at which point the pressing body falls under the force of gravity to apply the loading force and press the pointed end of the tip and at least a part of each of the stoppers to form the optical aperture at the pointed end of the tip.

44. (new) An apparatus according to claim 42; wherein the pressing body has a hole; and wherein the load controller comprises a rotational crank having a driving portion extending through the hole of the pressing body so that during rotation of the rotational crank, the driving portion drives the pressing body in a first direction until the rotational crank is rotated through a preselected rotational angle at which point the driving portion drives the pressing body in a second direction opposite to the first direction to apply the loading force and press the pointed end of the tip and at least a part of each of the stoppers to form the optical aperture at the pointed end of the tip.

45. (new) An apparatus according to claim 42; further comprising an opaque film disposed on the tip and the stoppers of the object so that the pressing body presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.

46. (new) An apparatus according to claim 42; further comprising a plate disposed over at least the tip and the stoppers of the object; and wherein the pressing body has a pressing portion for applying the loading force to the plate to press the pointed end of the tip and at least a part of each of the stoppers to form the optical aperture at the pointed end of the tip.

47. (new) An apparatus according to claim 46; further comprising an opaque film disposed on the tip and the stoppers of the object so that the plate presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.

48. (new) An apparatus according to claim 46; wherein the pressing portion of the pressing body is generally spherical-shaped.

49. (new) An apparatus according to claim 48; further comprising an opaque film disposed on the tip and the stoppers of the object so that the plate presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.

50. (new) An apparatus according to claim 46; wherein the pressing body comprises a generally cylindrical-shaped roller.

51. (new) An apparatus according to claim 50; further comprising an opaque film disposed on the tip and the stoppers of the object so that the plate presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.

52. (new) An apparatus according to claim 46; wherein the pressing body is made of a material softer than that of the plate.

53. (new) An apparatus according to claim 52; further comprising an opaque film disposed on the tip and the stoppers of the object so that the plate presses the pointed end of the tip, at least a part of each of the stoppers, and at least a part of the opaque film to form the optical aperture at the pointed end of the tip.